REMARKS

Reexamination and reconsideration of this application in view of the following remarks is respectfully requested. By this amendment, claims 1, 9, 12 and 17 are amended; no claims are currently canceled; and no new claims are added. After this amendment, claims 1, 2, 3, 9, 10, 11, 12, 17, 18 and 24 remain pending in this application.

Claim Rejections - 35 USC §112

Reconsideration of the rejection of claims 9-12 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the applicant regards as the invention is requested in view of the amendment to claim 9 and for the following reasons.

The Examiner stated that the following terms in claim 9 were not clearly understood: The pair of terms: "regular performance mode" and "reduced performance mode", on the one hand; and the pair of terms: "background mode" and "foreground mode", on the other hand.

The pair of terms: "regular performance mode" (i.e., "non-reduced performance mode") and "reduced performance mode" refers to the state of the processor system hardware. These terms indicate hardware states that change the amount of power consumed by the processor system hardware.

On the other hand, the terms: "foreground mode" and "background mode" are states of an application being executed via an operating system. "Foreground mode" is typically a higher priority state than "background mode" and "foreground mode" often has direct user (i.e., human being) interaction. A "background mode" typically occurs when an application is far removed from direct user interaction, either because the application is waiting for a condition to be met before engaging the user, or because the user has an expectation that the application will perform its function without further input directly from the user. This is explained in the specification at page 20, lines 16 through page 21, line 5. Furthermore, these terms are well established in the industry.

Some examples: Data backup applications often run in "background mode" so that they perform their function in a way that the user barely notices. A game application may run in

"background mode" to wait for another player to be online before resuming active play in "foreground mode". Many instant messaging applications have a "background mode" portion that waits for state changes of users in a "buddy list" and only enters a "foreground mode" to update those changes on the screen, alerting the user to the change, or when the user initiates active messaging.

In summary, "foreground mode" and "background mode" are states of an application (i.e., software), whereas "regular performance mode" and "reduced performance mode" are states of the processor system (i.e., hardware) that may be executing the application.

Therefore, the Applicants believe that the rejection of claims 9-12 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicants regard as the invention has been overcome.

Claim Rejections - 35 USC §103

Reconsideration of the rejection of claims 9-12 under 35 U.S.C. §103(a) as being unpatentable over Rawson et al., (U.S. Pat. No. 5,682,204), hereinafter "Rawson", is respectfully requested in view of the amendment to claim 9 and for the following reasons. Claim 9 was amended to more clearly recite the Applicants' invention. No new matter was added.

With the Applicants' invention, the operating system software of the electronic device accesses resource requirements metadata associated with an application prior to any execution of any code of the application. The preceding assertion is supported in the specification. For example, see page 15, lines 12-16, which state:

> "The operational flow diagram of FIG. 4 shows an overall process of how the wireless device 106, computer readable medium, or computer in FIG. 7 or any other electronic device, evaluates the current state of the electronic device and decides how an application 350 **will or will not be** executed by the electronic device."

The Examiner will note that the above-quoted description of the method in accordance with the Applicants' invention, the future tense of the verb "**will be**" was purposefully used. Use of the

future tense of the verb means that the application has not yet started to execute, as of the time of evaluation of the current state (i.e., the present state) of the electronic device. The method in accordance with the Applicants' invention evaluates the current state of the electronic device and decides how an application 350 before the application is executed by the electronic device.

On the other hand, with Rawson, any resources requirements needed by an application, such as power management, are performed only after the application has started, i.e., only after some of the code of the application has already executed. Rawson teaches a set of power management system calls which may be accessed by either a power management proactive application (203) or a Command Script (201). In this way, a script or an application, which is already running, is given a way to register its requirements and then to suspend its operation until the registered requirements are met. With the Applicants' invention, the resource requirements (which may include power management requirements) are attached as metadata to an application, so that the operating system may examine the requirements before any portion of the application starts to run. Therefore, Rawson *teaches away* from the Applicants' invention.

This difference between Rawson and the Applicants' invention is fundamental, and changes a great deal about how such a system behaves and operates. As a simple example, with the Applicants' invention, the operating system programming is responsible for the portions of code that interact with the user to request approval for changes in the performance mode (i.e., regular performance mode or reduced performance mode) of the processor. With Rawson, each application separately interacts with the user, by having system calls that the application can access to change the resource demand during execution. Because each application may have a different author, each application will likely interact with the user in a different manner and possibly in a confusingly different manner. The Applicants' invention guarantees that the user sees a consistent experience provided by the system programming; whereas, in Rawson, each application implements its own code by directly executing system calls (see step 604 in FIG. 6 of Rawson).

The following excerpts from the Applicants' specification teach placing the resource requirements of an application in metadata associated with the application. See page 12, line 16 to page 14, line 14 of the Applicants' specification, as follows (emphasis added):

"In one embodiment of the present invention, an application resource requirement (ARR) file 352 associated with the application 350 can also be stored in the storage module 310. ARR file 352 includes data related to the application resource requirements associated with the execution of the application 350 on the wireless device 106. A more detailed description of application resource requirements is provided below. ARR file 352 can be a Java Descriptor file (JAD) or other file typically used for holding **metadata** pertaining to another file and be stored as part of the file or in a resource directory such as a bat, dat, registry, or other resource file. An exemplary JAD file including power management and performance application resource requirements is shown below.

MIDlet-1: AsteroidsGame,
AsteroidsGame.png,
com.mot.j2me.midlets.AsteroidsGame

MIDlet-Jar-Size: 134859
MIDlet-Jar-URL: AsteroidsGame.jar
MIDlet-Name: AsteroidsGame
MIDlet-Vendor: Motorola, Inc.
MIDlet-Version: 85.00.16
SMTPServer: idenmoto.com
iDEN-MIDlet-Performance-FPS-TARGET: 12 // 12 Frames/Second iDEAL
iDEN-MIDlet-Performance-MIPS-AVG: 5 // Average 5 MIPS
iDEN-MIDlet-Performance-MIPS_MIN: ***3*** *// **Need at least 3 MIPS to Run***
iDEN-MIDlet-Performance-MIPS_BACKG: ***0.3*** *// **Need at least 0.3 MIPS***
*// **to Run when used in***
*// **Background mode**.*
iDEN-MIDlet-Performance-Class: None // Not performance critical App
iDEN-MIDlet-Performance-IO: None // No a factor for this App

MIDlet-1: MP3AUDIOPlayer, MP3AUDIOPlayer.png,
com.mot.j2me.midlets.MP3AUDIOPlayer
MIDlet-Jar-Size: 234200
MIDlet-Jar-URL: MP3AUDIOPlayer.jar
MIDlet-Name: MP3AUDIOPlayer
MIDlet-Vendor: Motorola, Inc.

MIDlet-Version: 85.00.11

SMTPServer: idenmoto.com

iDEN-MIDlet-Performance-FPS-TARGET: 15 *// 12 Frames/Second iDEAL*
iDEN-MIDlet-Performance-MIPS-AVG: 50 *// Average 50 MIPS*
iDEN-MIDlet-Performance-MIPS_MIN: ***35*** ***// Need at least 35 MIPS to Run***
iDEN-MIDlet-Performance-MIPS_BACKG: ***10*** ***// Need 10 MIPS when placed on***
// Background Mode
iDEN-MIDlet-Performance-Class: Medium *// Relative Performance App*
iDEN-MIDlet-Performance-IO_SDIO: 44kb *// Need BW from SDIO port"*

Therefore, because the Applicants' invention uses metadata that is embedded in an application, the application does not have to execute in order for the operating system to determine the resource requirements of the application. With the Applications' invention, the resource requirements of an application can be determined prior to the application running. With the Applications' invention, the resource requirements of an application can be determined without the application ever running (not even once). This is in contrast with Rawson, which requires each application to execute its application code, wherein the application code of Rawson makes system calls to provide resource requirements to the operating system.

Rawson fails to disclose all the steps of amended claim 9. In particular, Rawson fails to disclose the second step of amended claim 9, to wit:

> "**prior to any execution of any code associated with the application**, reading an application priority level application resource requirement of the application **stored in metadata associated with the application**, in which the application priority level application resource requirement indicates how important it is for the processor to execute the application in the regular performance mode;"

The changes to amended claim 9 are supported by the specification, including, for example, at page 15, lines 12-16 (which was reproduced above), and by page 16, lines 1-3, which is reproduced below:

> "In step 406, the electronic device **reads the application resource requirement (ARR) file 352 associated with the application 350**, which is stored in the storage module 310."

Therefore, amended claim 9 should be allowed. Accordingly, the Applicants believe that the rejection of claims 9-12 under 35 U.S.C. §103(a) as being unpatentable over Rawson has been overcome.

Reconsideration of the rejection of claims 1-3, 17-18 and 24 under 35 U.S.C. §103(a) as being unpatentable over Rawson in view of Kozuch et al., (U.S. Pat. No. 7, 225,441) hereinafter "Kozuch", further in view of Diepstraten et al., (U.S. Pat. No. 6,243,736) is respectfully requested in view of the amendments to claims 1 and 17, and for the following reasons. Claims 1 and 17 were amended to more clearly recite the Applicants' invention. No new matter was added.

Addressing now specifically the rejection of claim 1. The combination cited by the Examiner fails to disclose all the steps of amended claim 1. In particular, the combination fails to disclose the following steps of amended claim 1:

> "**prior to any execution of any code associated with the application**, the operating system reading at least one application resource requirement of the application by accessing metadata associated with the application;"

> "wherein if the at least one application resource requirement cannot be met by the electronic device, **preventing the starting of execution** of the application,"

The change made to the above-quoted last part of amended claim 1 is supported in FIG. 4 and at page 21, lines 19-21 of the specification, which states as follows:

> "In step 412, the wireless device determines whether the application 350 will be executed, as established above in step 410. If the application 350 is executed, control flows to step 414. If the application 350 is not executed, control flows to step 418."

A review of the Applicants' FIG. 4 demonstrates that an application may never even begin to start after step 410, which is the step at which the wireless device determines the circumstances of execution of the application. Therefore, amended claim 1 should be allowed.

Amended claim 17 recites similar language; therefore, amended claim 17 should also be allowed for similar reasons.

The Applicants agree with the Examiner's statement, "Rawson does not teach indicating to a user that the application cannot be executed on the electronic device, indicating to the user which application resource requirement cannot be met by the electronic device, indicating to the user how the electronic device can be modified to meet the application resource requirement, prompting the user for agreement to modify the electronic device, in response to a command indicating agreement, modifying the electronic device to meet the application resource requirement associated with the application, and executing the application on the electronic device".

However, the Applicants disagree with the Examiner that the virtual machines (VMs) of Kozuch are analogous to the user of the Applicants' invention, and that the virtual machine monitor (VMM) of Kozuch is analogous to the electronic device of the Applicants' invention. The Applicants' invention allows for user intervention and agreement by a person, as recited in claims 1 and 17. For example, the second element of amended claim 17 recites as follows:

> "a user interface for receiving a command indicating that **a user of the electronic device** desires to execute an application;"

The electronic device of the invention responds to a decision made by the user by modifying the electronic device to meet the application resource requirement associated with the application (if such was indeed the decision indicated by the user). Kozuch fails to disclose any human intervention in its mechanism.

The Applicants agree with the Examiner's statement that Rawson does not teach "wherein if the at least one application resource requirement can be met by the electronic device when the application executes in the foreground mode, executing the application in the foreground mode, wherein if the at least one application resource requirement can be met by the electronic device only when the application executes in background mode, executing the application in background mode, and wherein if the at least one application resource requirement cannot be met by the electronic device, suspending the execution of the application."

Therefore, the Applicants believe that the rejection of claims 1-3, 17-18 and 24 under 35 U.S.C. §103(a) as being unpatentable over Rawson in view of Kozuch has been overcome.

Conclusion

The foregoing is submitted as full and complete response to the Office Action dated August 4, 2008. It is believed that the application is now in condition for allowance. Allowance of claims 1, 2, 3, 9, 10, 11, 12, 17, 18 and 24 is respectfully requested.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless the Applicants have argued herein that such amendment was made to distinguish over a particular reference or combination of references.

The Applicants acknowledge the continuing duty of candor and good faith in the disclosure of information known to be material to the examination of this application. In accordance with 37 CFR §1.56, all such information is dutifully made of record. The foreseeable equivalents of any territory surrendered by amendment is limited to the territory taught by the information of record. No other territory afforded by the doctrine of equivalents is knowingly surrendered and everything else is unforeseeable at the time of this amendment by the Applicants and their attorneys.

The Commissioner is hereby authorized to charge any fees that may be required or credit any overpayment to Deposit Account No.: **50-1556**.

PLEASE CALL the undersigned attorney at (561) 989-9811, should the Examiner believe a telephone interview would help advance prosecution of the application.

Respectfully submitted,

Date: November 4, 2008

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